

April 1989

OHIO DEPARTMENT OF NATURAL RESOURCES
DIVISION OF RECLAMATION

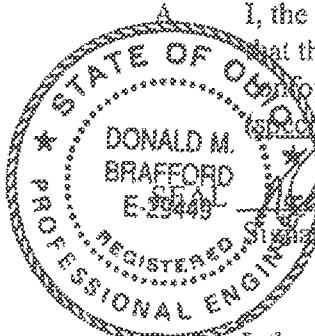
CERTIFICATION 1

CERTIFICATION OF SEDIMENT CONTROL SYSTEM CONSTRUCTION

Permittee's Name AMERICAN ENERGY CORPORATION Permit D-1159

Complete both certification statements listed below.

I, the undersigned, a surveyor or engineer registered in the State of Ohio, hereby certify that the measurements of the constructed sediment control system described below conform to the measurements contained in the approved original/"as built"*(specify one) design plan.



Donald M. Brafford PE.
Signature

Title

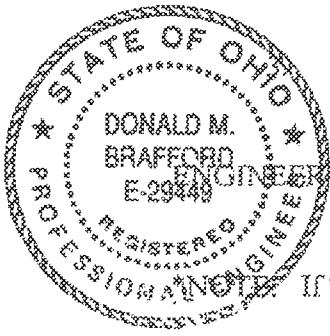
(engineer/surveyor)

4-5-89
Date

I, the undersigned, an engineer registered in the State of Ohio, hereby certify that the sediment control system described below has been constructed per the approved original/"as built"*(specify one) design specifications and criteria and that:

1. the embankment foundation area was cleared of all organic matter and the entire foundation surface scarified;
2. the fill material was free of sod, large roots, other large vegetative matter, frozen soil, and coal processing waste; and

the fill was brought up in horizontal layers of such thickness as required to facilitate compaction in accordance with prudent construction standards.



S SEAL

Donald M. Brafford
Signature

4-5-89
Date

If "as built," then "as built" plan must be attached to this certification.

This sediment control system consists of:

Sediment ponds no. 018A, _____, _____
Diversions (describe in relation to pond numbers).

Other control methods (describe if different from permit descriptions)

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ATTACHMENT 30
(SEDIMENTATION POND/IMPOUNDMENT DATA SHEET)

D-1169
AS-BUILT

Applicant's Name AMERICAN ENERGY CORPORATION Pond # 018A

Type of impoundment EMBANKMENT Permanent _____ Temporary ✓

1. POND DRAINAGE AREA DATA:

- a) Drainage area .23 acres
 - b) Disturbed area .13 acres
 - c) Ave. land slope .10 %
 - d) Hydrologic soil group C
 - e) Hydraulic length 870 ft.
 - f) Cover/condition of the undisturbed area N/A
-

2. DESIGN STORM CRITERIA:

a) Method:

- 1) Design method (s) including computer programs: SEDCAD 4.0
- 2) SCS curve number 85

b) Rainfall Amount/Peak Flow	Rainfall, in.	Peak flow, cfs.
1) 10 year, 24 hour =	<u>3.7</u>	<u>51</u>
2) 25 year, 24 hour =	<u>4.3</u>	<u>62</u>
3) 50 year, 6 hour = (if permanent)		
4) 100 year, 6 hour = (if 20/20 size)		

3. POND SIZE:

a) Dimensions:

- 1) Dam height .18 ft. 4) Dam downstream slope .13 % (MAX)
- 2) Dam width .12 ft. (MIN) 5) Dam upstream slope .50 % (MAX)
- 3) Dam length 137 ft. 6) Core length 137 ft. .10 ft. .4 ft.

b) Sediment storage volume 1.82 ac. ft. is provided below the 1082.5 foot elevation.

c) Stage/Area Data:	Elevation ft.	Surface Area ac.	Volume ac.ft.
1) Bottom of pond	<u>1066.0</u>	<u>0</u>	<u>0</u>
2) Streambed at upstream toe:	<u>1066.0</u>	<u>0</u>	<u>0</u>
3) Principal spillway inlet:	<u>1082.8</u>	<u>0.45</u>	<u>3.82</u>
4) Emergency Spillway Crest:	<u>1085.8</u>	<u>0.79</u>	<u>5.73</u>
5) Top of embankment:	<u>1087.8</u>	<u>0.89</u>	<u>7.35</u>

*Top of
Dam & Pier*

4. PRINCIPAL SPILLWAY:

- a) Pipe length 120 ft.
- b) Pipe diameter 12 in.
- c) Pipe slope .13 %
- d) Riser diameter 18 in.
- e) Riser height 10 ft.
- f) Type of pipe CMP
- g) Number of anti-seep collars 8; spacing along pipe 20 ft.
- h) Does the design include a trash rack? Yes, No.
- i) Does the design include an anti-vortex device? Yes, No.

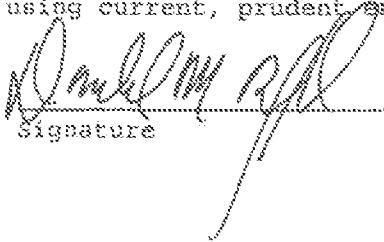
5. EMERGENCY SPILLWAY/EXIT CHANNEL:

- a) Base width 14 ft.
- b) Design flow depth .04 ft. Depth in level section .3 ft.
- c) Exit slope .35 %
- d) Exit velocity 1.8 fps
- e) Channel lining GRASS MIXTURE
- f) Side slopes 2:1
- g) Freeboard 1.3 ft.
- h) Entrance slope .50 %
- i) Length of level section 20 ft.

- 6. The minimum static factor of safety for this impoundment is 1.5.
- 7. Provide as an addendum to this attachment a detailed plan view or 2 cross sections of the impoundment.

8. COMMENTS:

- 9. Is this an MSHA structure? Yes, No. If "yes," provide the MSHA ID. number if one has been assigned _____.
- 10. If this is to be retained as a permanent impoundment, submit an addendum to this attachment demonstrating compliance with rule 1501:13-9-04(H) (2) of the Administrative Code.
- 11. I hereby certify that this impoundment is designed to comply with the applicable requirements of rule 1501:13-9-04 of the Administrative Code using current, prudent engineering practices.


Signature

